

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004530**Date Inspected:** 05-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower & OBG**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Sub-Assembly Bay 1:

The QA Inspector randomly observed 4 ZPMC welders Jang Li Ping ID 201840/Zhao Cheng Shuang ID 059400 and Song Yin Shu ID 059361/Zhang Shao Hui ID 059403, utilizing the Submerged Arc Welding (SAW) Process in 2G/2F Positions on Gantry 1 with ZPMC Weld Procedure Specification (WPS), to weld the U-Ribs to Deck Plate DP229-001 (8CW), at Weld Joint (WJ) Numbers 003/004 and 007/008. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 682/689 amps, 24.5/25.1 volts (003/004) and 687/691 amps, 25.4/24.8 volts with a travel speed of 518 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders Dong Yiqun ID 059450 and Gong Zhi Wu ID 059405, utilizing the Flux Cored Arc Welding (FCAW) Process in 3F Position with ZPMC WPS WPS-B-T-2133, to weld 8mm diaphragms to the U-Ribs for Deck Plate DP175-001. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

OBG Sub-Assembly Bay 2:

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The QA Inspector randomly observed no contract work being performed in Bay 2.

OBG Sub-Assembly Bay 3:

The QA Inspector randomly observed ZPMC welder ID 051786, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2F Position with ZPMC WPS WPS-B-P-2112, to fit up and tack weld T-Ribs to Side Plate SP SP767-001 at WJ's 061/062. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Jiang Jing Teng ID 046830, utilizing the SAW Process in the 1G Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the butt splice between Bottom Plate Sections BP123A/PL787A and BP123A/PL787B at WJ BP177-001-161. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

OBG Sub-Assembly Bay 4:

The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Tecnicians Sun Gong Chang and Cai Xin Xin, utilizing the Magnetic Particle Testing (MT) Method to perform a final MT examination of the cover pass of the fillet welds on Side Plate Sub-Assemblies SP130-001 (8BW) WJ's 013 through 024, SP620-001 (8CE) WJ's 001 through 012, SP580-001 (8CE) WJ's 030 through 041 and SP767-001 (8CW) WJ's 001 through 012. There appeared to be no indications and ZPMC QC accepted all the above listed welds.

The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of the fillet welds on Side Plate Sub-Assemblies SP130-001 (8BW) WJ's 013 through 024 (Green Tag 001451), SP620-001 (8CE) WJ's 001 through 012 (Green Tag 001454), SP580-001 (8CE) WJ's 030 through 041 (Green Tag 001452) and SP767-001 (8BW) WJ's 001 through 012 (Green Tag 001453). There appeared to be no indications the QA Inspector accepted all of the above listed welds. The attached photograph provides additional detail.



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Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, 13764710411, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie
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Quality Assurance Inspector

Reviewed By:	Wright,Mark
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QA Reviewer
